UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/124,805	07/29/1998	JOHN O. LAMPING	D/98205Q1	7115

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HAYNES BEFFEL & WOLFELD LLP
P O BOX 366
HALF MOON BAY, CA   94019

EXAMINER
HAVAN, THU THAO

ART UNIT	PAPER NUMBER
2672	29

DATE MAILED: 04/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _12 February 2003_ .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-15 and 17-28_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-15 and 17-28_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4)☐ Interview Summary (PTO-413) Paper No(s). _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: .

DETAILED ACTION

Response to Amendment

1.   Claims **1-15 and 17-28** are pending in the present application.

2.   Applicant's arguments filed February 12, 2003 have been fully considered but they are not persuasive. As addressed below, Lamping et al. teaches the claimed limitations.

Lamping discloses based on the nearby relationship data, obtaining layout data indicating the element's position relative to a parent in the space with negative curvature, the step of obtaining layout data comprising the step of calculating the element's position relative to a parent in the space with negative curvature (col. 21, line 11 to col. 25, line 23; col. 32, lines 19-35; col. 16, lines 45-63; col. 4, lines 44-50; fig. 5-7 and 17). In other words, Lamping teaches each position on the unit (i.e. nearby relationship data) can be specified by a pair of x and y coordinates between –1.0 to +1.0. In that the orientation step can change the manner in which orientation of child nodes in relation to their parent changes in response to a click call. For example, the act in box makes a call to DoNode for the next child with the child's handle and with the parent's position from the box. Thus, a sibling node with a large number of descendants has more room than a sibling with few descendants, so that root node feature had children with different nearest nodes spacing. In that when comparing child node feature whose descendants span a larger angle, with child node feature whose descendants span a smaller angle. As a result, grandchildren are more nearly the same distance from their grandparent than if the descendants of every parent spanned

the same angle. Furthermore, each node at each lower level having a parent node at a

next higher level to which the node is related through one link...[and] a node-link

structure to obtain layout data, indicating positions for parts of the node-link structure in

a layout space. The lower level nodes having parent nodes which discloses the

relationships between nearby nodes. In data structure, the parent and the child nodes

(lower level nodes) are the nearest relationships between nodes. As for obtaining

layout data based on the nearby relationship, Lamping teaches a node-link structure to

obtain layout data. He teaches the layout of the data when he indicates the position of

the nodes in a data structure. Furthermore, in hyperbolic structure the nodes are linked

by the parents thus the element's position is relative to a parent.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
> (b) the invention was patented or described in a printed publication in this or a foreign country or in
> public use or on sale in this country, more than one year prior to the date of application for patent in
> the United States.

Claims **1-15 and 17-28** are rejected under 35 U.S.C. 102(b) as being anticipated

by Lamping et al. (US Patent No. 5,619,632).

Re claims **1, 13-15, 17, and 26-28**, the prior art Lamping had:

A.) A method of laying out a node-link structure in space with negative curvature

(col. 16, lines 45-63; col. 25, lines 52-62; fig. 17). In the specification of the application,

page 11 and lines 3-7, the inventors claim the negative curvature as a space in which

parallel lines diverge...there are multiple other straight lines parallel to the given straight

line. An example of a space with negative curvature is hyperbolic n-space. Therefore,

Lamping teaches a negative curvature when he discloses representation includes link

features that are lines representing links between nodes in a node-link structure and

node features, some of which are rectangles with characters in them but others of which

are intersections or ends lines as in figures 14-16. Particularly, figure 17 discloses

negative curvature when there are parallel lines of parents and children nodes that

diverge into many other nodes.

B.) The method comprising of obtaining nearby relationship data for an element

in the structure, the nearby relationship data indicating information about nearby node-

link relationships (col. 4, lines 44-50; col. 32, lines 19-35). Lamping teaches that each

node at each lower level having a parent node at a next higher level to which the node

is related through one link corresponds to the nearby relationship data indicating

information about nearby node-link relationships. When the nodes are linked than there

are relationships between nodes.

C.) The method comprising of the based on the nearby relationship data,

obtaining layout data indicating the element's position relative to a parent in the space

with negative curvature, the step of calculating the element's position relative to a

parent in the space with negative curvature (col. 21, line 11 to col. 25, line 23; col. 16,

lines 45-63; col. 32, lines 19-35; col. 25, lines 52-62; col. 4, lines 44-50; fig. 5-7 and 17).

Lamping teaches the step of the lower level node features that share a parent node

feature having centers of area positioned in order approximately along an arc with sufficiently similar spacing from the center of area of the parent node feature corresponds to the step of obtaining layout data indicating the element's position relative to a parent in the space. The area of positioning the nodes indicates the element's position. In addition, the lower level nodes having a parent node correspond to obtaining the nearby relationship. In data structure, the parent and the child nodes (lower level nodes) are the nearest relationships between nodes. As for obtaining layout data based on the nearby relationship, Lamping teaches a node-link structure to obtain layout data. He teaches the layout of the data when he indicates the position of the nodes in a data structure.

Re claims **2-4 and 18-20**, Lamping discloses the space with negative curvature is a hyperbolic space (col.17, lines 28-44, col. 16, lines 53-62; col. 20, lines 20-52). Lamping teaches a negative curvature as a hyperbolic space when he discloses the layout space is a hyperbolic plane.

Re claim **5**, the limitations of claim 5 analyzed as discussed with respect to claims 1 and 13-15 above.

Re claims **6-7 and 21-23**, Lamping discloses the radii and angles for the set of children to obtain a position displacement and an angle displacement between the parent and the element (col. 23 and 24; fig. 13).

Re claims **8 and 24**, Lamping discloses the nearby node-link relationships include only relationships among the parent and the parent's children and grandchildren (col. 25, lines 24-50; fig. 13).

Re claims **9-12 and 25**, Lamping discloses the method is performed in each of a series of iterations (col. 19, lines 61-67; col. 20 and 21; fig. 12).

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Inquiries

5.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Thu-Thao Havan whose telephone number is (703) 308-

7062. The examiner can normally be reached on Monday to Thursday from 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Michael Razavi can be reached on (703) 305-4713.

Any response to this action should be mailed to:

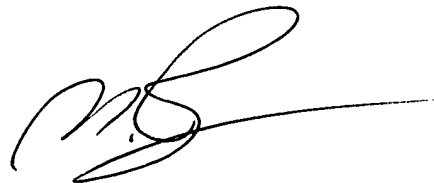Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal

Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the Technology Center 2600 Customer Service Office

whose telephone number is (703) 306-0377.

TTH
April 8, 2003

MICHAEL RAZAVI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600